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DISCUSSION

Dr John Ricotta (*Washington, D.C.*). Do you have any data on your perioperative anticoagulation protocol? Do you think you're sending your patients home too quickly? Your average length of stay is 1 day and perhaps this affects your readmission rate.

Dr Karen J. Ho. This cohort includes the patients of 10 surgeons, and virtually all of them give protamine at the end of the case. Our rate of bleeding complications has decreased over the 10-year study period, possibly because of the initiation of protamine. I think the higher rate of hematoma and bleeding that we report partially reflects the period of time before we were using protamine regularly.

Dr Ricotta. I just wonder whether maybe the pendulum has gone a little too far in one direction. Why don't you answer that question and then we'll get Dr Moore.

Dr Ho. The mean postoperative length of stay of this cohort was 2.4 days with a range of 1 to 66 days. Using this same patient cohort, we know that increased length of stay is not associated with decreasing unplanned readmissions.

Dr Wesley Moore (*Los Angeles, Calif*). I have just one question. I noted that you were only capturing readmission to your own hospital. In my institution, I have patients coming from a fair distance away, and I suspect that must be true in your institution as well when you're looking at the experience in a tertiary care medical center. I'm wondering if you're missing readmissions to other hospitals, and would it be possible to go back and find out that information as well?

Dr Ho. That's a very good point. It's one of the weaknesses of a single-center cohort study. Our rate of unplanned readmission is 6.5%. The unplanned readmission rate from a VA study that was published in 2004 was 4%. The readmission rate from the 2011 NSQIP database, which includes readmission data for the first time, is approximately 7%. And a paper that was presented at the Midwestern Vascular Society last year reported an unplanned readmission rate of 8.8% in a Medicare database. So I think even though we are not capturing readmissions that perhaps went to another hospital, our readmission rate is still comparable to contemporary estimates.

We could potentially go back to the charts and see if there are any mentions of readmissions to other centers, but my gut feeling is that patients tend to want to be seen by their surgeon for any problems that occur in the first month postop.

Dr Marat Goldenberg (*Cartersville, Ga*). Have you looked at the difficulty in stabilizing blood pressure postoperatively within the first 24 hours and correlate that with an appearance of complication or problems whether they result in admissions or not? And if blood pressure was difficult to control, either high or low, should the patient be kept in the hospital for an extra day?

Dr Ho. It's our routine practice to be very aggressive about maintaining systolic blood pressure between 100 and 140 mm Hg. We typically do not discharge patients until their blood pressure is stable within these parameters on an oral medication regimen. A third of our patients went home with a visiting nurse and usually that's for either wound checks or for blood pressure checks. We also have a care coordinator who calls patients post discharge day 1 to check on those issues.

Dr Krishnasamy Soundararajan (*Wilmington, Del*). I was interested in the group which was admitted for headache. It is generally believed that the chances of reperfusion symptoms are higher in patients with contralateral occlusion or high-grade stenosis. Would you be able to elaborate if you had looked into or if it is worth looking into the status of the contralateral carotid perfusion in those patients with headache?

Dr Ho. The reason why we are very aggressive about readmitting patients with headache and not discharging patients who report a headache is that we are concerned about cerebral

hyperperfusion. We have not looked at contralateral carotid occlusion and the incidence of headache.

Dr Matthew Sweet (*Seattle, Wash*). In light of the discussion about the benefit of carotid endarterectomy in asymptomatic patients, can you infer anything about the patients who had postoperative CHF in terms of helping to better risk stratify patients before the operation? Have these data changed the practice pattern at your hospital, or are there any other lessons we can take away on who maybe shouldn't have an asymptomatic carotid endarterectomy?

Dr Ho. I think we all know that the rate of readmission for patients with CHF is very high. Nationally the average readmission rate is on the order of 20% to 24%. I looked up our hospital's readmission rate for CHF patients and it matches the national average.

I think that once one has determined that a patient is at risk for a postop complication but potentially could also benefit from the surgery, I think one has to accept that there is a risk/benefit ratio to everything one does, understand the factors that contribute to risk, and try to minimize them to the best of one's ability.